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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/220,016	12/23/1998	ANDREW JOHN HOMAN	RO4364(NORT10-00005)	4058

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EXAMINER
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APPIAH, CHARLES NANA

ART UNIT	PAPER NUMBER
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2686

DATE MAILED: 04/15/2004

25

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/220,016

Applicant(s)

HOMAN ET AL.

Examiner

Charles Appiah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 39-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 39-45 is/are rejected.
- 7) ☒ Claim(s) 46 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Continued Prosecution Application***

1. The request filed on 3 February 2003 for a Continued Prosecution Application (CPA) (Paper Number 18) under 37 CFR 1.53(d) based on parent Application No. 09/220,016 is acceptable and a CPA has been established. An action on the CPA follows based on the preliminary amendment (Paper Number 24) filed on 26 January 2004.

***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 39, 40, 42, and 44, are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shirai (6,104,924)** in view of **Gauvin et al. (5,991,760)**.

With respect to claim 39 Shirai discloses a wireless terminal method and a wireless terminal comprising:

providing a memory on the wireless terminal, which in an on-line mode is adapted to be treated as a local virtual memory by an application program running on a server to read and write data in the virtual memory related to the remote application program ("... fixed station supplies to the mobile station the appropriate scripts which the mobile station is capable of utilizing, the mobile station stores the supplied scripts in its memory", col. 5, lines 5-9), and Shirai further teaches operating the mobile station in accordance with the stored at least one script and receiving a user input to aid in configuring the operating features of the mobile station to select and implement at least one specific capability indicated in the terminal capabilities response without further

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contact with the fixed station" (col. 6, lines 46-51). Shirai thus read on the invention as claimed except the limitation of the local application having read and write access to the data stored in the virtual memory, wherein in the off-line mode, when the application program running on the server modifies data at the server, the application program running on the server thereafter establishes a data session with the wireless terminal and updates corresponding data in the virtual memory and when the local application program modifies particular data in the virtual memory, the local application program outputs a message to the server, containing updates for at least some of the particular data.

Gauvin discloses method for modifying copies of remotely stored documents using a web browser (see title), in which a local copy of a remote network document that has been downloaded from the network on to a client computer can be accessed and modified when the client is disconnected from the network (see abstract, col. 2, lines 11-29 and col. 5, lines 6-40). Gauvin further discloses that modifications made to the local database copy may be made to the database of the origin server upon re-connection (see col.5, lines 54-57).

It would therefore have been obvious to one of ordinary skill in the art have been obvious to one of ordinary skill in the art, at the time of the invention to incorporate the above teaching of Gauvin by providing read and write access to memory locations to which data has been downloaded in the system of Shirai for the benefit of enabling the updating or modification of downloaded information normally located on a remote server, when the terminal is not connected to the network and providing the updated information when reconnected to the server.

Regarding claim 40, Shirai further discloses providing an application program running on the server (see col. 5, lines 4-6).

With respect to claim 42, Shirai discloses a server method, comprising: providing an application program running on the server (see col. 5, lines 4-6), the application program treating as local virtual memory a memory located on a wireless terminal while a connection between the server and the wireless terminal is established (“... fixed station supplies to the mobile station the appropriate scripts which the mobile station is capable of utilizing, the mobile station stores the supplied scripts in its memory”, col. 5, lines 5-9, col. 5, lines 53-56), sending to the wireless terminal a local application program. Shirai further discloses operating the mobile station in accordance with the stored at least one script and receiving a user input to aid in configuring the operating features of the mobile station to select and implement at least one specific capability indicated in the terminal capabilities response without further contact with the fixed station”, col. 6, lines 46-51). Shirai further inherently teaches the wireless terminal downloading the local application program while in the on-line mode (“... downloading of the SMS-VT scripts from the fixed station to the mobile station . . .”, col. 4, lines 53-64), which suggests the capability of the application program running on the server to establish a data session with the wireless terminal when there had been a modification of data at the server in the off-line mode. Shirai further discloses configuring the operating features of the mobile station to select and implement at least one specific capability indicated in the terminal capabilities response without further contact with the fixed station (col. 6, lines 48-51), thus suggesting the capability of the mobile station to

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modify particular data in the virtual memory while in the off-line mode. Shirai thus read on the invention as claimed, except the limitation of the local application having read and write access to the data stored in the virtual memory, wherein in the off-line mode, when the application program running on the server modifies data at the server, the application program running on the server thereafter establishes a data session with the wireless terminal and updates corresponding data in the virtual memory and when the local application program modifies particular data in the virtual memory, the local application program outputs a message to the server, comprising updates for at least some of the particular data.

Gauvin discloses method for modifying copies of remotely stored documents using a web browser (see title), in which a local copy of a remote network document that has been downloaded from the network on to a client computer can be accessed and modified when the client is disconnected from the network (see abstract, col. 2, lines 11-29 and col. 5, lines 6-40). According to Gauvin this enables a client to locally update a database, normally located on a remote server, when the client is not connected to the network (see col. 2, lines 5-9)

It would therefore have been obvious to one of ordinary skill in the art have been obvious to one of ordinary skill in the art, at the time of the invention to incorporate the above teaching of Gauvin by providing read and write access to memory locations to which data has been downloaded in the system of Shirai for the benefit of enabling the updating or modification of downloaded information normally located on a remote server, when the terminal is not connected to the network to conserve network or system resources.

With respect to claim 44, Shirai discloses a wireless terminal comprising: providing a memory , which in an on-line mode is adapted to be treated as a local virtual memory by an application program running on a server to read and write data in the virtual memory related to the remote application program (“... fixed station supplies to the mobile station the appropriate scripts which the mobile station is capable of utilizing, the mobile station stores the supplied scripts in its memory”, col. 5, lines 5-9), and Shirai further teaches operating the mobile station in accordance with the stored at least one script and receiving a user input to aid in configuring the operating features of the mobile station to select and implement at least one specific capability indicated in the terminal capabilities response without further contact with the fixed station” (col. 6, lines 46-51), thus suggesting a local application program on the wireless terminal having read and write access to data in the memory in an off-line mode. Shirai further inherently teaches the wireless terminal downloading the local application program while in the on-line mode (“... downloading of the SMS-VT scripts from the fixed station

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to the mobile station . . .", col. 4, lines 53-64), which suggests the capability of the application program running on the server to establish a data session with the wireless terminal when there had been a modification of data at the server in the off-line mode. Shirai thus read on the invention as claimed except the limitation of the local application having read and write access to the data stored in the virtual memory, wherein in the off-line mode, when the application program running on the server modifies data at the server, the application program running on the server establishes a data session with the wireless terminal and updates corresponding data in the virtual memory and when the local application program modifies particular data in the virtual memory, the local application program outputs a message to the server, containing updates for at least some of the particular data.

Gauvin discloses method for modifying copies of remotely stored documents using a web browser (see title), in which a local copy of a remote network document that has been downloaded from the network on to a client computer can be accessed and modified when the client is disconnected from the network (see abstract, col. 2, lines 11-29 and col. 5, lines 6-40). Gauvin further discloses that modifications made to the local database copy may be made to the database of the origin server upon re-connection (see col.5, lines 54-57).

It would therefore have been obvious to one of ordinary skill in the art have been obvious to one of ordinary skill in the art, at the time of the invention to incorporate the above teaching of Gauvin by providing read and write access to memory locations to which data has been downloaded in the system of Shirai for the benefit of enabling the



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updating or modification of downloaded information normally located on a remote server, when the terminal is not connected to the network and providing the updated information when reconnected to the server.

4. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Shirai and Gauvin et al** as applied to claim 39 above, and further in view of **Spaur et al. (5,732,074)**.

Regarding claim 41, Shirai as modified by Gauvin fail to specifically teach downloading applets from the server to the wireless terminal. Spaur discloses a method for communicating information between a mobile portable wireless terminal and remote computer in which a web server can dynamically respond to an http request by downloading applets to the portable terminal to control or modify data at the terminal (see col. 11, line 58 to col. 12, line 15).

It would therefore have been obvious to one of ordinary skill in the art to provide the applet downloading capability of Spaur to the system of Shirai and Gauvin in order to control and modify data for various applications in a remote terminal as taught by Spaur.

5. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Shirai and Gauvin et al** as applied to claims 39 and 44 above, and further in view of **Perdomo (6,118,995)**.

Regarding claim 45, Shirai as modified by Gauvin fails to teach further comprising a plurality of keys having dynamically redefinable functions wherein the local application program specifies softkey labels identifying a respective function defined by the

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application program for at least one of the keys, the local application program comprising the functions defined for at least one of the keys.

Perdomo discloses a method for updating a function value in a wireless communication system in which as illustrated in Fig. 4, the operation of a function key using the current function value is changed by performing a function value change (86) when a change to the function value is received the function (76, 78, 80), with a local program in the wireless terminal comprising the functions defined for at least one of the keys having softkey labels (see col. 3, lines 10-65, col. 4, lines 16-49).

It would therefore have been obvious to one of ordinary skill in the art to incorporate the above teaching of Perdomo by providing the ability to change a function value based on a notification of geographic location for example, into the system of Shirai and Gauvin in order to expand the value of wireless subscriber units without requiring a manual function change by an end user as taught by Perdomo.

#### ***Allowable Subject Matter***

6. Claim 46 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

7. Applicant's arguments filed on 7/2/02 (Paper Number 13) have been fully considered but they are not persuasive.

With respect to Applicants' argument that Gauvin fails to teach the element of "wherein in the off-line mode, when the application program running on the server

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modifies data at the server, the application program running on the server establishes a data connection with the wireless terminal and updates corresponding data in the virtual memory", as best understood by the examiner, Applicants' application program running on the server may modify data at the server in the off-line mode but the data connection with the wireless terminal is only possible in an on-line mode for the updating of the corresponding data in the virtual memory to take place and such a situation is broadly met by Gauvin's teaching of a user being able to access and modify the remote document copy through the client browser when disconnected, and upon re-connection to the network, the client computer then updating the remote document to reflect the changes made by the client computer during disconnect (see col. 2, lines 5-29). Gauvin thus provide a teaching for making the combination of Shirai and Gauvin in that it is possible to make modifications in the off-line mode and provide the modified data to another device when in an on-line mode (establishes data session with the wireless terminal), and hence the rejection of claim 39 is proper and maintained..


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Appiah whose telephone number is 703 305-4772. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsh Banks-Harold can be reached on 703 305-4379. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9306 for regular communications and 703 308-6296 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 306-0377.

CA  
13 April 2004

  
**CHARLES APPIAH**  
**PRIMARY EXAMINER**